

generates a set of progress tracking information **1204** that corresponds to a student in a particular class and for a particular context assigned in a particular hand-out.

**[0168]** In some embodiments, the daemon **440** aggregates the progress tracking information **1204** for a class to calculate various statistics for the class based on the report data. For example, the daemon **440** can calculate a total number of students in the class, and a total number of students that have completed the hand-in or activity. The daemon **440** can also use time stamps associated with the different progress tracking information **1204** to calculate a total time for each student to complete the hand-in or activity (e.g., by calculating a difference between a first time stamp and a last time stamp for all progress tracking information for a particular activity or hand-in). As another example, the daemon **440** can calculate scores for each student based on correct/incorrect responses provided on a quiz or problem set. The daemon **440** can calculate a ratio of passing scores to failing scores, a ratio of the number of students with passing scores to total students in the class or the number of students with failing scores, an average score for the class, a minimum score and a maximum score for the class, a median score and a standard distribution of the collection of scores, a distribution of scores mapped to letter grades (e.g., a number of A scores, a number of B scores, and so on), and any other relevant statistics related to scores and/or the progress tracking information **1204**.

**[0169]** In some embodiments, a student can make a number of attempts to complete a particular activity. For example, a student could take a quiz a number of times. In such embodiments, the request for the report can specify whether the report data should include progress tracking information **1204** for each attempt completed by the student or only the last attempt completed by the student. If the progress tracking information includes data for multiple attempts, then the daemon **440** can be configured to calculate statistics related to the multiple attempts such as an average score, a top score of all attempts, a ratio of passing attempts to failed attempts, etc.

**[0170]** In some embodiments, the daemon **440** can also be configured to download roster information from a roster zone **465** in the remote database **460** in order to correlate a user identifier associated with the progress tracking information with a student name, for example.

**[0171]** In other embodiments, the client application **210** is configured to perform the functionality of aggregating the progress tracking information **1204** and/or calculating statistics related to the progress tracking information **1204** in the local database **450**. The daemon **440** merely facilitates downloading the progress tracking information **1204** from the zone **465** in the remote database **460** to the local database **450** to allow the client application **210** to access the progress tracking information **1204**. The client application **210** is then configured to perform any necessary analysis using the progress tracking information **1204** in order to generate values to populate in fields of a GUI presented to the instructor.

**[0172]** FIGS. **14A-14B** illustrate a GUI **1400** of the client application **210**, in accordance with some embodiments. The GUI **1400** can be used to present report data related to an assigned hand-out to an instructor. The GUI **1400** can be presented on a display **302** of the client device **120**. As shown in FIG. **14A**, the GUI **1400** is displayed on a tablet computer such as client device **120-2**. The GUI **1400** can

include a number of elements including graphics, text, icons, shapes, input fields, display regions, etc. In some embodiments, the GUI **1400** is displayed in response to an instructor selecting an element **312** for an assigned hand-out in the GUI **300**.

**[0173]** The GUI **1400** includes a first display region **1410** and a second display region **1420**. The first display region **1410** presents information included in the hand-out such as a title of the hand-out, a due date for the hand-out, an indication of the class in which the hand-out is assigned, and instructions included in the hand-out by the instructor. A second display region **1420** presents information related to any hand-ins and/or activities that were attached to the hand-out by the instructor.

**[0174]** Each hand-in or activity attached to the hand-out and presented in the second display region **1420** can also be presented with report data related to the hand-in or activity. Report data can be displayed within one or more elements **1422**. For example, as shown in FIG. **14A**, an activity associated with application two includes: a first element **1422-1** that displays a ratio of passing scores to failing scores for students that have completed the activity; a second element **1422-2** that displays an average time for the students to complete the activity; and a third element **1422-3** displays a ratio of the number of students that have completed the activity to the total number of students in the class.

**[0175]** In addition, an icon **1424** is presented proximate the hand-in or activity that enables the instructor to view more detailed information pertaining to the report data. As shown in FIG. **14B**, selecting the icon **1424** can cause the GUI **1400** to be updated to display detailed information in the second display region **1420** proximate the hand-in or activity. It will be appreciated that the second display region **1420** can automatically be adjusted to cover the pixels in the display **302** previously covered by both the first display region **1410** and the second display region **1420**. Of course, the extents of the second display region **1420** can remain the same as in FIG. **14A** or be updated manually in response to a touch input gesture that relocates the first display region **1410** and/or the second display region **1420** up or down relative to the pixels of the display **302**. For example, a swipe gesture can be utilized to scroll the first display region **1410** and/or the second display region **1420** up or down.

**[0176]** As shown in FIG. **14B**, report data related to each individual student enrolled in the class can be presented in the GUI **1400**. For example, an entry **1426** of the detailed information includes a student name, an indication of whether the student passed or failed the activity, if completed, a time for each student to complete the activity in the third-party application, and an indication of whether the activity has been completed. It will be appreciated that the information shown in FIG. **14B** is merely one example of the type of detailed information that can be presented in the GUI **1400**. In other embodiments, the detailed information can include other types of statistics or raw progress tracking information (e.g., a breakdown of each action that was tracked by the daemon **440** with a time the action was received by the daemon **440** and information related to the action). In yet other embodiments, the detailed information can include graphical representations of the report data, such as graphs or charts that show a student's progress over time, links to the answers to a set of problems submitted by the student, links to the hand-in or a recording of the activity performed by the student, and so forth.